



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,620	12/28/2001	Durga P. Satapathy	1474	3860
21396	7590	09/15/2005	EXAMINER	
Sprint 6391 SPRINT PARKWAY KSOPHT0101-Z2100 OVERLAND PARK, KS 66251-2100			BEAMER, TEMICA M	
			ART UNIT	PAPER NUMBER
			2681	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,620

Applicant(s)

SATAPATHY ET AL.

Examiner

Temica M. Davis

Art Unit

2681

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1448 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 13-21, 23, 24, 26-37, 39, 41-50, 56-61, 63, 64 and 66-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Gorman, U.S. Patent No. 6,141,356.

Regarding claims 1 and 48, Gorman discloses a system/method for multiple access comprising a wireline switch configured to communicate using a wireline communication (col. 2, lines 45-49); a wireless switch (inherent to cellular/wireless systems) configured to communicate using a wireless communication (col. 7, line 45- col. 8, line 4); and an access device (62) configured to communicate with the wireline switch and the wireless switch (col. 6, lines 6-23 and col. 8, lines 35-56; figure 3).

Regarding claims 2 and 49, Gorman discloses the system/method of claims 1 and 48 wherein the access device is configured to receive the wireless communication from the wireless switch and to receive the wireline communication from the wireline switch (col. 6, lines 9-22 and col. 8, lines 35-56).

Regarding claims 3 and 50, Gorman discloses the system/method of claims 1 and 48 wherein the access device is configured to transmit the wireless communication

Art Unit: 2681

to the wireless switch and to transmit the wireline communication to the wireline switch (col. 6, lines 9-22 and col. 8, lines 35-56).

Regarding claim 4, Gorman discloses the system of claim 1 wherein the wireless communication comprises at least one member of a group comprising a multipoint multichannel distribution service spectrum communication, a code division multiplex access communication, a personal communication service communication, an unlicensed personal communications services spectrum communication, an industrial scientific medical spectrum communication, an unlicensed national information infrastructure spectrum communication, and a satellite service communication (col. 7, lines 1-9 and col. 7, line 45-col. 8, line 4).

Regarding claim 5, Gorman discloses the system of claim 1 wherein the wireline communication comprises at least one member of a group comprising a digital subscriber line based communication and a hybrid fiber coaxial based communication (col. 3, lines 24-36).

Regarding claim 6, Gorman discloses the system of claim 1 wherein the access device and the wireless switch are not within line of sight (figure 3).

Regarding claim 13, Gorman discloses the system of claim 1 wherein the access device comprises a digital subscriber line modem (col. 8, lines 38-56).

Regarding claim 14, Gorman discloses the system of claim 1 wherein the wireline switch comprises a digital subscriber line access multiplexer (col. 3, lines 33-45).

Regarding claim 15, Gorman discloses the system of claim 1 wherein the wireline switch comprises at least one member of a group comprising a local exchange carrier switch and an interexchange carrier switch (col. 2, lines 40-50).

Regarding claims 16 and 56, Gorman discloses the system/method of claims 1 and 48 wherein the access device is configured to process the wireless communication with at least one member of a group comprising encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation (col. 6, lines 9-23).

Regarding claims 17 and 57, Gorman discloses the system/method of claims 1 and 48 wherein the access device is configured to process the wireline communication with at least one member of a group comprising encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation (col. 8, lines 38-41).

Regarding claims 18 and 58, Gorman discloses the system of claims 1 and 48 wherein the wireless switch is configured to process the wireless communication with at least one member of a group comprising encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation (col. 7, line 45-col. 8, line 4).

Regarding claims 19 and 59, Gorman discloses the system/method of claims 1 and 48 wherein the wireline switch is configured to process the wireline communication with at least one member of a group comprising encryption, de-encryption, encoding,

decoding, multiplexing, de-multiplexing, modulation, and demodulation (col. 2, lines 40-50).

Regarding claims 20 and 60, Gorman discloses the system/method of claims 1 and 48 further comprising a service node configured to communicate with the wireless switch (col. 7, lines 45-52).

Regarding claims 21 and 61, Gorman discloses the system/method of claims 20 and 60 wherein the service node is configured to communicate with the wireless switch using at least one member of a group comprising a wireless communication and a wireline communication (col. 7, lines 45-52).

Regarding claims 23 and 63, Gorman discloses the system/method of claims 1 and 48 further comprising a service node configured to communicate with the wireline switch (col. 4, lines 20-23).

Regarding claims 24 and 64, Gorman discloses the system/method of claims 23 and 63 wherein the service node is configured to communicate with the wireline switch using at least one member of a group comprising a wireless communication and a wireline communication (col. 4, lines 20-23).

Regarding claims 26 and 66, Gorman discloses the system/method of claims 1 and 48 wherein the wireless communication comprises a first service type communication and the wireline communication comprises a second service type communication (col. 2, line 58-col. 3, line 46).

Regarding claim 27, Gorman discloses a system for multiple access comprising: a wireline switch configured to receive a first set of communications, to format the first

Art Unit: 2681

set of communications as at least one wireline communication, and to transmit the at least one wireline communication (col. 2, lines 45-49); a wireless switch configured to receive a second set of communications, to format the second set of communications as at least one wireless communication, and to transmit the at least one wireless communication (col. 7, line 45-col. 8, line 4); and an access device configured to receive the at least one wireline communication and the at least one wireless communication (col. 8, lines 35-56).

Regarding claim 28, Gorman discloses the system of claim 27 wherein the first set of communications are formatted as a plurality of wireline communications, and the wireline switch is configured to transmit the plurality of wireline communications to the access device (col. 3, lines 24-36).

Regarding claim 29, Gorman discloses the system of claim 27 wherein the wireline switch comprises a digital subscriber line access multiplexer, and the digital subscriber line access multiplexer is configured to multiplex the first set of communications as at least one digital subscriber line wireline communication (col. 3, lines 24-36).

Regarding claim 30, Gorman discloses the system of claim 27 wherein the second set of communications are formatted as a plurality of wireless communications, and the wireless switch is configured to transmit the plurality of wireless communications to the access device (col. 7, line 45-col. 8, line 4).

Regarding claim 31, Gorman discloses the system of claim 27 further comprising a premises equipment wherein the access device is configured to format the wireless

Art Unit: 2681

communication to a digital communication and to transmit the digital communication to the premises equipment (col. 3, lines 16-45; figure 3).

Regarding claim 32, Gorman discloses the system of claim 31 wherein the digital communication comprises voice based data, and the premises equipment is configured to format the digital communication as an analog communication for voice access (col. 3, lines 16-45).

Regarding claim 33, Gorman discloses the system of claim 27 further comprising a premises equipment wherein the wireless communication comprises voice-based data, and the access device is configured to format the wireless communication to an analog communication for voice access and to transmit the analog communication to the premises equipment (col. 3, lines 16-45).

Regarding claim 34, Gorman discloses the system of claim 27 wherein the first set of communications comprises data representative of at least one member of a group comprising voice-based data, internet protocol data, digital data, video data, and media data (col. 8, lines 13-33).

Regarding claim 35, Gorman discloses the system of claim 27 wherein the second set of communications comprises data representative of at least one member of a group comprising voice-based data, internet protocol data, digital data, video data, and media data (col. 8, lines 13-23).

Regarding claim 36, Gorman discloses a system for multiple access comprising: an access transceiver configured to communicate using a wireline communication and a wireless communication (col. 6, lines 6-23 and col. 8, lines 35-56; figure 3); a medium

Art Unit: 2681

access control layer configured to control access to the access transceiver for communicating the wireline communication and the wireless communication (figure 3); and a service hub configured to communicate first data for the wireline communication and second data for the wireless communication for at least one premises communication (col. 4, line 47-col. 5, line 43)..

Regarding claim 37, Gorman discloses the system of claim 36 further comprising a multiplexer configured to demultiplex the wireline communication and the wireless communication (col. 3, lines 33-46).

Regarding claim 39, Gorman discloses the system of claim 36 further comprising a multiplexer configured to multiplex at least one member of a group comprising the first data and the second data (col. 3, lines 33-46).

Regarding claim 41, Gorman discloses the system of claim 36 further comprising a modulator configured to modulate data from the premises communication for generation of at least one member of a group comprising the wireline communication and the wireless communication (col. 6, lines 6-23 and col. 8, lines 35-56).

Regarding claim 42, Gorman discloses the system of claim 36 further comprising a modulator configured to demodulate data from at least one member of a group comprising the wireline communication and the wireless communication for generation of the premises communication (col. 6, lines 6-23 and col. 8, lines 35-56).

Regarding claim 43, Gorman discloses the system of claim 36 wherein the access transceiver comprises at least one member of a group comprising a plain old

telephone service port, a digital subscriber line port, a hybrid fiber coaxial port, and an antenna (col. 3, lines 16-45).

Regarding claim 44, Gorman discloses the system of claim 36 further comprising a premises equipment comprising at least one member of a group comprising a computer, a telephone, a set top box, and a narrowband device (col. 8, lines 35-56; figure 3).

Regarding claim 45, Gorman discloses the system of claim 36 wherein the access transceiver is configured to transmit or receive the wireline communication and the wireless communication (col. 6, lines 6-23 and col. 8, lines 35-56; figure 3).

Regarding claim 46, Gorman discloses the system of claim 36 wherein the medium access control layer further is configured to control a resource for combining first data from the wireline communication and second data from the wireless communication to another communication (col. 5, lines 8-42).

Regarding claim 47, Gorman discloses the system of claim 36 wherein the service hub is configured to transmit or receive the premises communication (col. 4, line 47-col. 5, line 42; figure 3).

Regarding claim 67, Gorman discloses a method for multiple access comprising: receiving a first set of communications at a wireline switch, formatting the first set of communications as at least one wireline communication, and transmitting the at least one wireline communication (col. 2, lines 45-49); receiving a second set of communications at a wireless switch, formatting the second set of communications as at least one wireless communication, and transmitting the at least one wireless

Art Unit: 2681

communication (col. 7, line 45-col. 8, line 4); and receiving the at least one wireline communication and the at least one wireless communication at an access device (col. 6, lines 6-23 and col. 8, lines 35-56).

Regarding claim 68, Gorman discloses the method of claim 67 further comprising formatting the first set of communications as a plurality of wireline communications, and transmitting the plurality of wireline communications to the access device (col. 3, lines 33-46 and col. 8, lines 35-56).

Regarding claim 69, Gorman discloses the method of claim 67 further comprising formatting the second set of communications as a plurality of wireless communications, and transmitting the plurality of wireless communications to the access device (col. 6, lines 6-23).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-12, 22, 25, 38, 40, 51-55, 62 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorman in view of well known prior art.

Regarding claim 7, Gorman discloses the system of claim 1 wherein the access device is configured to process at least one member of a group comprising the wireless

communication and the wireline communication using a multiplex asynchronous transfer mode protocol (col. 9, lines 2-7).

Gorman , however, fails to specifically disclose using inverse multiplex ATM.

The examiner contends, however, that such a protocol is well known and widely used in the industry, and the examiner takes official notice as such.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Gorman with the teachings of well known prior art since such a protocol is used for processing signals. Further, the examiner believes that such a limitation would not render the claims patentable over the applied reference because such a limitation depends merely on how one would like to process the signals.

Regarding claims 8 and 51, Gorman, as modified, discloses the system/method of claims 7 and 48 wherein the processing using inverse multiplex asynchronous transfer mode protocol comprises at least one member of a group comprising multiplexing and de-multiplexing (col. 9, lines 2-7).

Regarding claims 9 and 52, Gorman, as modified, discloses the system of claims 1 and 48 wherein the access device further is configured to receive the wireless communication, to receive the wireline communication, and to use a multiplex asynchronous transfer mode protocol to combine data from the wireless communication and other data from the wireline communication to form a premises communication (col. 5, lines 8-42 and col. 9, lines 2-7).

Gorman , however, fails to specifically disclose using inverse multiplex ATM. The examiner contends, however, that such a protocol is well known and widely used in the industry, and the examiner takes official notice as such.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Gorman with the teachings of well known prior art since such a protocol is used for processing signals. Further, the examiner believes that such a limitation would not render the claims patentable over the applied reference because such a limitation depends merely on how one would like to process the signals.

Regarding claims 10 and 53, Gorman, as modified discloses the system/method of claims 9 and 52 further comprising a premises equipment configured to receive the premises communication from the access device (figure 3).

Regarding claims 11 and 54, Gorman discloses the system/method of claims 1 and 48 wherein the access device is configured to use a multiplex asynchronous transfer mode protocol to process a first portion of data for transmission in the wireless communication and to process a second portion of data for transmission in the wireline communication (col. 2, line 58-col. 3, line 46 and col. 9, lines 2-7).

Gorman , however, fails to specifically disclose using inverse multiplex ATM. The examiner contends, however, that such a protocol is well known and widely used in the industry, and the examiner takes official notice as such.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Gorman with the teachings of well known prior art since such a protocol is used for processing signals. Further, the examiner believes that

such a limitation would not render the claims patentable over the applied reference because such a limitation depends merely on how one would like to process the signals.

Regarding claims 12 and 55, Gorman discloses the system/method of claims 11 and 54 further comprising a premises equipment configured to transmit a premises communication to the access device, the premises communication comprising the first portion of data and the second portion of data (figure 3).

Regarding claims 22, 25, 62 and 65 Gorman discloses the system/method of claims 20, 23, 61 and 63 as described above wherein the service node is configured to use multiplex asynchronous transfer mode protocol to process a portion of data for transmission to the wireless/wireline switch (col. 7, lines 45-52, col. 8, lines 35-56 and col. 9, lines 2-7).

Gorman , however, fails to specifically disclose using inverse multiplex ATM. The examiner contends, however, that such a protocol is well known and widely used in the industry, and the examiner takes official notice as such.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Gorman with the teachings of well known prior art since such a protocol is used for processing signals. Further, the examiner believes that such a limitation would not render the claims patentable over the applied reference because such a limitation depends merely on how one would like to process the signals.

Regarding claims 38 and 40, Gorman discloses the system of claims 37 and 39 wherein the multiplexer is configured to process the wireline communication/first data and the wireless communication/second data with a multiplex asynchronous transfer

Art Unit: 2681

mode protocol to generate another communication (col. 3, lines 33-46 and col. 9, lines 2-7).

Gorman , however, fails to specifically disclose using inverse multiplex ATM.

The examiner contends, however, that such a protocol is well known and widely used in the industry, and the examiner takes official notice as such.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Gorman with the teachings of well known prior art since such a protocol is used for processing signals. Further, the examiner believes that such a limitation would not render the claims patentable over the applied reference because such a limitation depends merely on how one would like to process the signals.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Adams et al, U.S. Patent No. 6,427,071.

Katko, U.S. Patent No. 6,223,054.

Gillespie, U.S. Patent No. 6,014,377.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tetrica M. Davis whose telephone number is (703) 306-5837. The examiner can normally be reached on Monday-Thursday (alternate Fridays) 8:00am-5:00pm.

Art Unit: 2681

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Temica M. Davis
Examiner
Art Unit 2681

September 3, 2004

A handwritten signature in black ink, appearing to read "Temica M. Davis", with a horizontal line extending to the right.